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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,246	10/02/2003	John C. Reed	66821-235	8403

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EXAMINER	
CARLSON, KAREN C	

ART UNIT	PAPER NUMBER
1653	

DATE MAILED: 11/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/679,246	REED ET AL.	
	Examiner	Art Unit	
	Karen Cochrane Carlson, Ph.D.	1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-46* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 1-46 are currently pending and are subject to restriction.

Claim 1 refers to Shiah-Mediated Degradation Protein and/or SFC complex proteins. At page 12-15 of the specification, these proteins are defined as individual proteins having differing structure and function.

Siah-1a is defined as SEQ ID NO: 2, which comprises 298 amino acids. This protein binds SIP-L (SEQ ID NO: 4) and SIP-S (SEQ ID NO: 6.

SIP-L is defined as SEQ ID NO: 4, which comprises of 228 amino acids.

SIP-S is SEQ ID NO: 6, comprised of only 80 amino acids.

SAF-1a is SEQ ID NO: 8 (443 amino acids). This protein binds SIP-L (SEQ ID NO: 4) and SAD (SEQ ID NO: 14). SAF-1b is SEQ ID NO: 10 (552 amino acids).

SAF-2 is SEQ ID NO: 12 (327 amino acids), and is a homologue of SAF-1.

SAD is SEQ ID NO: 14 (447 amino acids) and binds SIP-L (SEQ ID NO: 4) and SAF-1.

Thus, the proteins represented by SEQ ID NO: 2, 4, 6, 8, 10, 12, and 14 differ in function.

The N-terminal sequences of SEQ ID NO: 2, 4, 6, 8, 10, 12, and 14 are show below. Because SEQ ID NO: 4 and 6 have the same first 10 N-terminal Amino acids, the last 5 amino acids of SEQ ID NO: 6 (75-80) and comparably positioned amino acids 75-80 are shown for SEQ ID NO: 4.

NO: 2 MVIII FLLPP

NO: 4 MASEE LQKDL....ISNYGY...

NO: 6 MASEE LQKDL....ISQISL

NO: 8 MARPP FFSFP

NO: 10 MRLRV RLLKR

NO: 12 MQLVP DIEFK

NO: 14 MSRRP CSCAL

Thus, the proteins represented by SEQ ID NO: 2, 4, 6, 8, 10, 12, and 14 differ in function.

For example, because Claim 1 is intended to cover these 7 patentably distinct proteins, claim 1 has been included in each invention related to SEQ ID NO: 2, 4, 6, 8, 10, 12, or 14. Claim 1 will be examined only in-so-far as it pertains to the elected invention.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

1. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 2, classified in class 536, subclass 23.1.
2. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 4, classified in class 536, subclass 23.1.
3. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 6, classified in class 536, subclass 23.1.
4. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 8, classified in class 536, subclass 23.1.
5. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 10, classified in class 536, subclass 23.1.
6. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 12, classified in class 536, subclass 23.1.
7. Claims 1-8 and 18, drawn to nucleic acid encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

8. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 2, classified in class 536, subclass 23.1.
9. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 4, classified in class 536, subclass 23.1.
10. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 6, classified in class 536, subclass 23.1.
11. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 8, classified in class 536, subclass 23.1.
12. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 10, classified in class 536, subclass 23.1.
13. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 12, classified in class 536, subclass 23.1.
14. Claims 9-12, 22, and 28, drawn to antisense oilgonucleotides of nucleic acid encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

15. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 2, classified in class 530, subclass 350.
16. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 4, classified in class 530, subclass 350.
17. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 6, classified in class 530, subclass 300.
18. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 8, classified in class 530, subclass 350.
19. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 10, classified in class 530, subclass 350.
20. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 12, classified in class 530, subclass 350.
21. Claims 13-17, 34, and 46, drawn to SEQ ID NO: 14, classified in class 530, subclass 350.

22. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 2, classified in class 530, subclass 387.1.
23. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 4, classified in class 530, subclass 387.1.

24. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 6, classified in class 530, subclass 387.1.
25. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 8, classified in class 530, subclass 387.1.
26. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 10, classified in class 530, subclass 387.1.
27. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 12, classified in class 530, subclass 387.1.
28. Claims 19-21, and 34, drawn to antibodies against SEQ ID NO: 14, classified in class 530, subclass 387.1.

29. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 2, classified in class 536, subclass 23.1.
30. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 4, classified in class 536, subclass 23.1.
31. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 6, classified in class 536, subclass 23.1.
32. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 8, classified in class 536, subclass 23.1.
33. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 10, classified in class 536, subclass 23.1.
34. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 12, classified in class 536, subclass 23.1.
35. Claims 23-25, drawn to transgenic animals comprising nucleic acid encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

36. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 2, classified in class 435, subclass 6.
37. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 4, classified in class 435, subclass 6.
38. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 6, classified in class 435, subclass 6.
39. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 8, classified in class 435, subclass 6.
40. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 10, classified in class 435, subclass 6.
41. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 12, classified in class 435, subclass 6.
42. Claims 26, drawn to method of detecting nucleic acid encoding SEQ ID NO: 14, classified in class 435, subclass 6.

43. Claims 27, drawn to methods of detecting SEQ ID NO: 2, classified in class 435, subclass 7.1.
44. Claims 27, drawn to methods of detecting SEQ ID NO: 4, classified in class 435, subclass 7.1.
45. Claims 27, drawn to methods of detecting SEQ ID NO: 6, classified in class 435, subclass 7.1.
46. Claims 27, drawn to methods of detecting SEQ ID NO: 8, classified in class 435, subclass 7.1.

47. Claims 27, drawn to methods of detecting SEQ ID NO: 10, classified in class 435, subclass 7.1.
48. Claims 27, drawn to methods of detecting SEQ ID NO: 12, classified in class 435, subclass 7.1.
49. Claims 27, drawn to methods of detecting SEQ ID NO: 14, classified in class 435, subclass 7.1.

50. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 2, classified in class 435, subclass 7.1.
51. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 4, classified in class 435, subclass 7.1.
52. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 6, classified in class 435, subclass 7.1.
53. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 8, classified in class 435, subclass 7.1.
54. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 10, classified in class 435, subclass 7.1.
55. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 12, classified in class 435, subclass 7.1.
56. Claims 29, drawn to methods of modulating the activity of oncoproteins via SEQ ID NO: 14, classified in class 435, subclass 7.1.

57. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 2, classified in class 536, subclass 23.1.
58. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 4, classified in class 536, subclass 23.1.
59. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 6, classified in class 536, subclass 23.1.
60. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 8, classified in class 536, subclass 23.1.
61. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 10, classified in class 536, subclass 23.1.
62. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 12, classified in class 536, subclass 23.1.
63. Claims 30, drawn to bioassay using nucleic acid encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

64. Claims 31 and 32, drawn to methods of modulating the activity SEQ ID NO: 2, classified in class 435, subclass 7.1.
65. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 4, classified in class 435, subclass 7.1.
66. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 6, classified in class 435, subclass 7.1.
67. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 8, classified in class 435, subclass 7.1.
68. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 10, classified in class 435, subclass 7.1.
69. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 12, classified in class 435, subclass 7.1.

70. Claims 31 and 32, drawn to methods of modulating the activity of SEQ ID NO: 14, classified in class 435, subclass 7.1.

71. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 2, classified in class 435, subclass 7.1.
72. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 4, classified in class 435, subclass 7.1.
73. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 6, classified in class 435, subclass 7.1.
74. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 8, classified in class 435, subclass 7.1.
75. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 10, classified in class 435, subclass 7.1.
76. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 12, classified in class 435, subclass 7.1.
77. Claims 33, drawn to methods of modulating protein degradation via SEQ ID NO: 14, classified in class 435, subclass 7.1.

78. Claims 34, drawn to an agonist of SEQ ID NO: 2, classified in class 530, subclass 350.
79. Claims 34, drawn to an agonist of SEQ ID NO: 4, classified in class 530, subclass 350.
80. Claims 34, drawn to an agonist of SEQ ID NO: 6, classified in class 530, subclass 300.
81. Claims 34, drawn to an agonist of SEQ ID NO: 8, classified in class 530, subclass 350.
82. Claims 34, drawn to an agonist of SEQ ID NO: 10, classified in class 530, subclass 350.
83. Claims 34, drawn to an agonist of SEQ ID NO: 12, classified in class 530, subclass 350.
84. Claims 34, drawn to an agonist of SEQ ID NO: 14, classified in class 530, subclass 350.

85. Claims 34, drawn to an antagonist of SEQ ID NO: 2, classified in class 530, subclass 350.
86. Claims 34, drawn to an antagonist of SEQ ID NO: 4, classified in class 530, subclass 350.
87. Claims 34, drawn to an antagonist of SEQ ID NO: 6, classified in class 530, subclass 300.
88. Claims 34, drawn to an antagonist of SEQ ID NO: 8, classified in class 530, subclass 350.
89. Claims 34, drawn to an antagonist of SEQ ID NO: 10, classified in class 530, subclass 350.
90. Claims 34, drawn to an antagonist of SEQ ID NO: 12, classified in class 530, subclass 350.
91. Claims 34, drawn to an antagonist of SEQ ID NO: 14, classified in class 530, subclass 350.

92. Claims 35, drawn to method of treatment via SEQ ID NO: 2, classified in class 514, subclass 2.
93. Claims 35, drawn to method of treatment via SEQ ID NO: 4, classified in class 514, subclass 2.
94. Claims 35, drawn to method of treatment via SEQ ID NO: 6, classified in class 514, subclass 2.
95. Claims 35, drawn to method of treatment via SEQ ID NO: 8, classified in class 514, subclass 2.

96. Claims 35, drawn to method of treatment via SEQ ID NO: 10, classified in class 514, subclass 2.
97. Claims 35, drawn to method of treatment via SEQ ID NO: 12, classified in class 514, subclass 2.
98. Claims 35, drawn to method of treatment via SEQ ID NO: 14, classified in class 514, subclass 2.

99. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 2, classified in class 514, subclass 2.
100. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 4, classified in class 514, subclass 2.
101. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 6, classified in class 514, subclass 2.
102. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 8, classified in class 514, subclass 2.
103. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 10, classified in class 514, subclass 2.
104. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 12, classified in class 514, subclass 2.
105. Claims 35, drawn to method of treatment via antibody against SEQ ID NO: 14, classified in class 514, subclass 2.

106. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 2, classified in class 514, subclass 2.
107. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 4, classified in class 514, subclass 2.
108. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 6, classified in class 514, subclass 2.
109. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 8, classified in class 514, subclass 2.
110. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 10, classified in class 514, subclass 2.
111. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 12, classified in class 514, subclass 2.
112. Claims 35, drawn to method of treatment via agonist of SEQ ID NO: 14, classified in class 514, subclass 2.

113. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 2, classified in class 514, subclass 2.
114. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 4, classified in class 514, subclass 2.
115. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 6, classified in class 514, subclass 2.
116. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 8, classified in class 514, subclass 2.
117. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 10, classified in class 514, subclass 2.
118. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 12, classified in class 514, subclass 2.

119. Claims 35, drawn to method of treatment via antagonist of SEQ ID NO: 14, classified in class 514, subclass 2.

120. Claims 36 and 37, drawn to a method of inducing degradation via cell expression of ubiquitin family, classified in class 514, subclass 2.

121. Claims 38 and 39, drawn to a method of detecting function of a protein via cell expression of ubiquitin family, classified in class 514, subclass 2.

122. Claims 40 and 41, drawn to a method of identifying nucleic acid encoding a protein via cell expression of ubiquitin family, classified in class 514, subclass 2.

123. Claims 42, drawn to a chimeric nucleic acid, classified in class 536, subclass 23.1.

124. Claims 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 2, classified in class 536, subclass 23.1.
125. Claims 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 4, classified in class 536, subclass 23.1.
126. 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 6, classified in class 536, subclass 23.1.
127. Claims 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 8, classified in class 536, subclass 23.1.
128. Claims 43 , drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 10, classified in class 536, subclass 23.1.
129. Claims 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 12, classified in class 536, subclass 23.1.
130. Claims 43 and 44, drawn to nucleic acid library comprising nucleic acid encoding SEQ ID NO: 14, classified in class 536, subclass 23.1.

131. Claims 45, drawn to gene therapy, classified in class 514, subclass 44.

The inventions are distinct, each from the other because of the following reasons:

The nucleic acids of Invention1-7I are related to the protein of Invention 15-21, respectively, by virtue of encoding same. The DNA molecule has utility for the recombinant production of the protein in a host cell. Although the DNA molecule and protein are related since the DNA encodes the specifically claimed protein, they are distinct inventions because the protein product can be made by another and materially different process, such as by synthetic peptide synthesis or purification from the natural source. Further, the DNA may be used for processes other than the production of the protein, such as nucleic acid hybridization assay.

The proteins of Invention 15-21 are related to the antibodies of Invention 22-28, respectively, by virtue of being the cognate antigen, necessary for the production of antibodies. Although the protein and antibody are related due to the necessary stearic complementarity of the two, they are distinct Inventions because the protein can be used in another and materially different process from the use for the production of the antibody, such as in a pharmaceutical composition in its own right, or to assay or purify the natural ligand of the protein (if the protein is itself a receptor), or in assays for the identification of agonists or antagonists of the receptor protein.

The nucleic acid of Invention 1-7l and the antibody of Invention 22-28, respectively, are related by virtue of the protein that is encoded by the nucleic acid and necessary for the production of the antibody. However, the nucleic acid itself is not necessary for antibody production and both are wholly different compounds having different compositions and functions. Therefore, these Inventions are distinct.

The protein of Invention 15-21 and the agonist of Invention 78-84, respectively, are related in that both products have similar activities. However, the structure of the products are different and therefore these Inventions are patentably distinct.

The protein of Invention 15-21 and the antagonist of Invention 85-91, respectively, have differing structure and opposing function. Therefore, these products are patentably distinct.

The nucleic acids of Invention 1-7 and the antibodies of Invention 22-28, differ in structure and function from the oligos of Invention 8-14, the agonists of Inventions 78-84 and the antagonists of Inventions 85-91. Therefore, these Inventions are patentably distinct from Invention XX.

Inventions 15-21 and Inventions 50-56, respectively, 71-77 respectively, and 92-98, respectively, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as

claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in any one of the methods of 50-56, respectively, 71-77 respectively, or 92-98, respectively.

The product of Inventions 15-21 are not used in the method of Invention 36-42, 43-49, 57-63, 64-70, 99-105, 106-112, 113-119, 120-131. Therefore, these Inventions are patentably distinct.

Inventions 22-28 and Inventions 43-49, respectively, and 99-105 respectively, are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as in any one of the methods of Inventions 43-49, respectively, and 99-105 respectively.

The product of Inventions 22-28 are not used in the method of Invention 36-42, 50-56, 57-63, 64-70, 71-77, 92-98, 106-112, 113-119, or 120-131. Therefore, these Inventions are patentably distinct.

The product of Inventions 1-7 are not used in the method of Invention 36-42,43-49, 50-56, 64-70, 71-77, 92-98, 99-105, 106-112, 113-119, or 120-131. Therefore, these Inventions are patentably distinct.

The methods of Inventions 36-42, 43-49, 50-56, 57-63, 64-70, 71-77, 92-98, 99-105, 106-112, 113-119, or 120-131require different products and steps and have different endpoints. Therefore, these Inventions are patentably distinct.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

> The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.
>
> In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 571-272-0946. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen Cochrane Carlson Ph.D

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KAREN COCHRANE CARLSON, PH.D
PRIMARY EXAMINER